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Language Education for Ab Initio Flight Training: A Plan Going Forward

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Aviation is the most global of all industries, and its presence in parts of the world where English is a foreign or second language is growing exponentially. Resulting from this growth is an almost desperate need for aviation personnel, forecasted to most dramatically impact regions of the world where English is neither a first nor a national language (see Airbus, 2019; Boeing, 2019). In fact, 35% of the new pilots needed are predicted to be in the Asia-Pacific region. Since English is the lingua franca of aviation operations, as mandated by the International Civil Aviation Organization (ICAO) (2010), training programs for these new pilots should include an English language component to enable safe and efficient communication among aviation operational personnel. With the anticipated growth of air travel will come more congested airways which will, in turn, create less talk time available on the radio; therefore, it will be essential for communication to be timely, concise, and accurate (Kay, 2019). The future of air travel will be more crowded, with new routes, more airports, and busier operations. The demographics of those piloting the aircraft in this emerging airspace will likely shift to include more non-native English speakers (NNES) with less operational experience. The next generation of aviation professionals (NGAP), despite their first language backgrounds, will inevitably need the English language to interact with the pilots, air traffic controllers, cabin crew, maintenance technicians, and flight instructors of the world.

Language in aviation is a high-profile, critical area. In nearly every aspect of aviation operations, the English language pervades. Its multidimensional effects on safety are seen in its use in operational and safety manuals; maintenance records and checklists; audio warnings on the flight deck; training seminars in the classroom; and in radiotelephony communications between pilots and air traffic controllers. English is also commonly used as the language of instruction in training. Increasingly, NNES ab initio students travel to English speaking countries

to obtain pilot licenses and then proceed through the pipeline to work as flight instructors who will eventually become airline pilots all over the world. Beginning this journey with a safe and effective level of English language proficiency allows for a smooth, cost-efficient, and timely flight training experience. English training for this particular population of the NGAP, then, must be carefully planned and executed to prepare for the communicative situations likely to be faced during training.

This chapter sets forth an ideal English language training process for NNES ab initio NGAP that is meaningful, cost- and time-efficient, and safety-oriented. To make the case for such training, the chapter identifies and explains aviation English for ab initio flight students as an occupational-specific subset of English language that differs from general English proficiency. The chapter then outlines a process for providing pre-flight school language instruction by using an assessment instrument for placement followed by training for those students who lack adequate aviation English language proficiency. Such aviation English curricula is recommended to be founded in the language teaching approaches of Content-Based Language Teaching, Task-Based Language Teaching, and English for Specific Purposes (ESP). The macro objective of this chapter is to promote the considerations and processes that are necessary to implement for ensuring that the large population of NGAP whose first language is not English are adequately prepared for flight training. While effective language proficiency training has numerous benefits—including facilitating operational content learning during flight school and clear communication in a multilingual and multicultural industry—the more important benefit is that effective language proficiency training will help maintain aviation safety.

Aviation English

A concise and comprehensive definition of the construct of aviation English is difficult to provide given the numerous contexts in which it is used (ICAO, 2010). English permeates beyond just pilot-controller communications on the radio; it is also used to facilitate Crew Resource Management (CRM) among multilingual flight crews, to exchange messages using controller-pilot data link communications (CPDLC), and to provide recurrent training from organizations like Flight Safety International. The need to participate in English-medium ab initio flight training is likely just the start of how the NGAP will utilize English throughout their training and careers.

International Civil Aviation Organization Language Proficiency Requirements

In 2003, the International Civil Aviation Organization (ICAO) adopted the Language Proficiency Requirements (LPRs), mandating that any pilot or air traffic controller operating internationally must minimally be rated as Operational Level 4 (ICAO, 2010). However, the LPRs are only applicable to professional pilots and controllers, and the evaluation criteria refers to their use of standard phraseology and plain language in the communicative domain of radiotelephony. Standard phraseology aims to facilitate clear communication between pilots through a catalogue of phrases designed to avoid ambiguity and influence from languages other than English (ICAO, 2016). The words and phrases prescribed in ICAO Document 9432, *Manual of Radiotelephony* (ICAO, 2007) cover a wide array of possible situations that may arise by flying, but their limitations create the need for mixtures of standard phraseology and general English to be used when necessary (Kukovec, 2008). General English within and beyond the specific domain of aviation operations is called ‘plain language’ (ICAO, 2010); ICAO (2007) implores that plain language follow the same principles of standard phraseology in that it should be as unambiguous as possible. On the surface, this notion is sensible; yet, plain language is

susceptible to a wide variety of linguistic influences that are likely to invite ambiguity and obscure clarity in communication. Examples of these influences include the use of region-specific idioms, the influence of accents, sociolinguistic factors, the use strategies and phrases for used for repairs, and more. Avianca Flight 052, an example that is visited later in this chapter, demonstrates the potential consequences of ambiguous speech in the phrase, "We just running out of fuel." Whether the first officer's use of the word "just" was intended to specify that something had happened just before (e.g., "We've just had lunch"), or to minimize a fact (e.g., "I'm just kidding") was not conveyed clearly to the controller and resulted in a fatal crash (Avianca 052, 1990).

Aviation English as a Teachable Form of English

It is important to acknowledge the complexities of aviation English, as it includes the specialized use of language for radiotelephony; at the same time, it is also used in multiple contexts for operations within the aviation industry. In the field of applied linguistics, language used in a specific domain is called English for Specific Purposes (ESP). ESP requires knowledge of technical vocabulary and patterns of language use specific to an industry and its related registers, also known as situations of language use (Alderson, 2009). For example, when considering a skill such as speaking, a pilot must have the specific ability to comprehend and produce technical aircraft-related utterances during communications with air traffic control, but also have the broader ability to participate in recurrent training, interact with the crew onboard, report information to maintenance personnel, and so on (ICAO, 2009).

Aviation English is also likely to be used in high stakes, time-sensitive situations (see Alderson, 2009). Being proficient is having the ability not only to choose spoken words and phrases that deliver clear, unambiguous messages, but also the ability to produce these words and

phrases with the phonological accuracy necessary to be understood. Aviation English involves the ability to receptively comprehend messages as well, often without the help of visual cues and potentially through merely suprasegmental indications such as intonation and stress patterns. The occupational demands for English language use in the aviation industry are high, and they differ drastically from other linguistic contexts. Lack of adequate language proficiency is likely to impact both safety and efficiency of operations (Hutchins, Nomura, & Holder, 2006). For these reasons, aviation English, in all contexts, deserves quality training programs, quality instructors, and a realistic and fair time investment.

The Ab Initio Flight Training Context

Ab initio flight training organizations are experiencing a push to get students through quicker and more cost-effectively than before, due to the pressure facing the airline industry to hire new pilots and keep the National Air Space System operating efficiently and safely (Circelli, 2018). In regions experiencing the demand to produce large numbers of pilots but lacking the capacity to do so, it is common to send trainees to countries such as the United States, Canada, or Australia for flight training. Many students come to flight schools in English speaking countries through contracts with airlines (Dusenbury & Bjerke, 2013) that place limits on the amount of training time permitted. However, the pressure to produce pilots quickly should not give way to compromising the achievement of adequate English proficiency; it is of utmost importance that all licensed pilots minimally have ICAO Operational Level 4 English proficiency.

During flight instruction in English speaking countries, training is almost certainly provided in English, typically by speakers of English as a first language; yet, as Emery (2015) points out, there is even an increasing trend for non-English speaking countries to also use English as the Medium of Instruction (EMI). Ground and flight instructors, while well versed in

operational information, are unlikely to be versed in strategies for accommodating English language learners. They are liable to use a fast speech rate and regional accent in addition to idioms—all of which may impede comprehension for international students. It is not surprising that non-native English speaking students report a variety of challenges in the EMI flight training environment, including communicating with their instructors and air traffic control; keeping up with the pace of training; taking aural tests and completing ground school listening tasks; and learning technical terminology (Nishikawa & Nawata, 2019). Linguistically, this context presents operational, procedural, and conceptual content through a variety of mediums. Lectures, videos, and on-site training (e.g., on the flight deck, during pre-flight) require listening skills and strategies. Texts used in both ground school and the flight training environment require reading skills and strategies. Interactions with flight instructors and air traffic controllers require real-time listening and pragmatic speaking skills. Even for native speakers of English, the linguistic proficiency necessary to acquire and demonstrate mastery of flight training content can be challenging.

The listening, speaking, and reading skills required to be successful in the EMI training environment are similar to English for Academic Purposes (EAP) skills. Students need to use the English language as a tool in their training to learn ground school topics, such as aircraft systems, airport operations, aerodynamics, and aviation weather, and to prove their mastery of this knowledge through oral and written examinations. Most commonly, students learn in a classroom modality, seated at desks listening to instructor lectures, perhaps using multimedia tools like videos or digital presentations. This input must be aurally received, comprehended, and reproduced through notetaking, and later, in examinations. Furthermore, students are asked to read long, information-dense texts, such as the Federal Aviation Administration's *Pilot's*

Handbook of Aeronautical Knowledge or Jeppesen's *Guided Flight Discovery: Private Pilot*, and utilize procedural documents during operations, such as Quick Reference Handbooks (QRH) and written checklists. Finally, interacting in an intelligible, fluent, and clear manner with their peers and flight instructor is necessary to exchange information, ask questions, and participate in hands-on training in the flight deck.

Academic skills are likely to be helpful in this context, but according to a 2019 survey of ab initio flight students at an institution in Japan, only 20% of students reported that intensive academic English preparation classes were useful overall in terms of the skills needed in flight training (Nishikawa & Nawata, 2019). To illustrate the limited effectiveness of academic skills, consider that many academic English programs place a heavy emphasis on writing instruction because written compositions are often used as assessments in higher education. Instructional time is often dedicated to the topics of rhetoric and the compositional structures used in research paper writing. These writing skills may be limited in their helpfulness within a flight training context. Furthermore, EAP training does not account for the nuances of the industry-specific complexities of aviation English such as its technical vocabulary and commonly employed phrases. A solution to this disparity between approaches is a comprehensive program which prepares students specifically for the language demands of ab initio flight training conducted in English, drawing from principles of both traditional EAP and English for Specific Purposes, with substantial attention given to the fact that these NGAP students are likely learning English as a tool to learn how to fly.

A Plan Going Forward

Because ICAO does not regulate ab initio flight training as strictly as commercial operations, member states have implemented a wide variety of testing and training policies.

Regardless of this reality, the following recommendations for admissions and training are applicable for all ab initio training contexts as a way to begin systematizing the process and establishing quality standards moving forward.

The Admission Process

Currently, there is no official criteria for admission into a flight school. Unlike universities which require certain scores on standardized exams, flight schools may use a variety of evaluative instruments to select new trainees. In some cases, they may not screen students at all. With no formal specifications for the design or administration of such evaluations, results across training organizations are inconsistent and unreliable. Evidence has shown, however, that pre-screening does have predictive power. Dusenbury and Bjerke (2013) found that higher English proficiency scores on English exams correlate with student success in flight school, specifically as an indicator of performance on oral exams and a lower total number of hours required to complete training. When students without adequate English language proficiency are admitted into flight school, the consequences can be substantial, especially when students are traveling abroad for their instruction. Aside from the demotivating frustration of being unable to communicate about content and procedures, students who face difficulties in the classroom due to English proficiency may be required to take unexpected time off from flight instruction for language remediation. Situations like these become costly detours and create unwelcome clogs in the organization's system. Furthermore, searching for a nearby aviation language program may prove futile, as most English programs focus only on general and academic skills, rather than skills specific to a flight school context.

Flight training programs must have an efficient and valid screening process for ab initio pilots (Dusenbury & Bjerke, 2013). Despite being commonly used as an entrance exam for flight

schools (Campbell-Laird, 2006), the Test of English as a Foreign Language (TOEFL) measures English language ability to perform academic tasks at the university level (Educational Testing Service, 2019) and is not a good indicator of overall success in the specific domain of ab initio flight training. Most commonly, a test taker's score is reported holistically; that is, the final reported score is combined from a test-taker's reading, writing, listening, and speaking sub-scores. The use of this evaluation as a determination for entrance into flight training is problematic because students may excel in reading and writing, but lack the listening and speaking skills needed in flight training (Albritton, 2007). Students who are more adept at passive language skills such as reading may be able to progress through the classroom courses of ground school only to be 'grounded' once they are required to communicate over the radio.

Other flight schools rely on the ICAO LPRs to screen students, but as Emery (2015) notes, doing so is a misuse of the LPR descriptors because they are written to test the English proficiency of pilots and controllers who have completed their professional flight training already. Moreover, they are designed to test English proficiency within the context of radiotelephony only; they are not written to test for flight training readiness. Furthermore, ICAO (2009) states that placement tests should refer only to subject matter that is familiar to the student population, suggesting that ab initio and professional pilots require different tests (Friginal, Mathews, & Roberts, in press). As ICAO does not produce assessment instruments and only develops and maintains standards, the type of assessment instrument to use in this domain remains an open question.

A standardized method of testing for non-native English speakers ab initio flight students is undoubtedly needed, rather than the ad hoc use of tests that may not be appropriate for the context (Albritton, 2007). An ideal measurement tool would be adapted from the ICAO LPRs

and take into account the specific language-related functions required for flight school. Currently, the LPRs assess language skills related to primarily listening and speaking in radiotelephony communications (comprehension, pronunciation, structure, vocabulary, fluency, and interaction). An assessment of English proficiency for flight school readiness would partially maintain this focus but also shift to the skills required for instructional interaction. Speaking descriptors would focus on pronunciation, structure, and fluency related to the functions of explaining, describing, asking questions for clarification, and recognizing and repairing breakdowns. Listening descriptors would focus on comprehension in dialogues, lectures, and videos. Reading descriptors would also be needed to assess the ability to comprehend complex, technical texts. To comply with ICAO's (2009) recommendation, successful performance on the test should not require any previous aviation knowledge or radiotelephony skills, as students will not yet have been exposed to this information (Emery, 2015).

The use of these specialized proficiency descriptors would enable flight schools to establish a threshold for English proficiency. Currently, this threshold for entrance into ab initio flight training has not been established in the same way that ICAO Operational Level 4 for commercial pilots and controllers has been. This type of assessment instrument, however, can serve as a basis for enrollment decisions, with the option of admitting only students who meet the threshold, or admitting students but providing them with a path forward for achieving the necessary language proficiency. Considering the industry pressure to produce new pilots, the latter option is preferred, providing, if required, supplementary language training before operational training begins (Mell, 2004).

Language Training Solutions

The preferred approach for aviation English language training is Content-Based Language Teaching (CBLT) (see ICAO, 2009; ICAO, 2010). This approach, also known as Content-Based Instruction, maintains a dual commitment to teaching specific subject matter, or 'content,' while also teaching language. The amount of instruction that is dedicated to either content or language instruction can be adjusted in line with the goals of the course (Stoller, 2004). CBLT is effective in the pre-flight language training context because it is often intrinsically motivating for students as the flight topics are of shared interest among the students and instructor. ICAO Document 9835 (2010) Section 7.5 states that using relevant content in the aviation English classroom "doubles the value of required language learning time by pairing language with important safety content" and allows the "time spent on language learning [to have] a positive impact on progress." For the instructor, having a consistent context for language teaching keeps a course focused and forces the instructor to employ the teaching techniques that best enable students to acquire the language skills necessary to achieve specific goals. All language teaching and learning, then, is purpose-driven and avoids the artificial separation of language and content (Mathews, 2014).

A training program for ab initio flight students should utilize a curriculum that contains tasks and language skills like those typically found in ab initio training environments (Friginal, Mathews, and Roberts, in press). The types of tasks in the classroom should mimic those that will occur in the 'real world' setting of flight training, including tasks such as listening to a lecture, answering questions from an instructor, participating in a debriefing, reporting an incident, or taking an oral exam. This practice of replicating, as closely as possible, real world activities ('target tasks') with classroom activities ('pedagogical tasks') is known as Task-Based Language Teaching (TBLT) and focuses on accomplishing meaningful learning objectives

through the completion of relevant tasks (Bygate, Skehan, & Swain, 2001). TBLT is similar to scenario-based training in that it allows students to practice completing tasks in an environment that affords learners the opportunity to pause, ask questions, clarify, negotiate, discuss, and even start over before performing the task in the operational environment (Friginal, Mathews, & Roberts, in press).

To prepare students for ab initio flight training in the medium of English, an approach using CBLT and TBLT can provide meaningful aviation content acquisition with the development of language skills specific to the training context. The content utilized throughout the course should be appropriate for ab initio students, with consideration given to both the operational knowledge-level and the English skill-level of the learners (Friginal, Mathews, & Roberts, in press). Authentic flight training material should be utilized in the classroom, through creative means of adaptation done by the curriculum developer. It is important to emphasize to all stakeholders involved that this instruction does not take the place of content instruction in flight school; instead, the content helps to prime the students for flight training when their English proficiency, reinforced by the curriculum, is at an appropriate level for success.

Currently, there are few commercial textbooks available for aviation English, none of which focus exclusively on preparing the ab initio flight student. For this reason, it is recommended to use a tailor-made program designed in-house or by a reputable institution, illustrating in its design a consideration for the specific demographic of learners being trained (Lin, Wang, & Zhang, 2014; Paramasivam, 2013). Courses designed for this population of students should utilize foundational aviation topics and a learner-centered approach. Again, it is vital that students enter into the flight training environment with adequate language proficiency,

considering the level of investment and the realistic possibility of a safety incident due to inadequate English (Emery, 2015).

An Aviation English Course for Ab Initio Flight Training

Language learning is not a quick process. The number of hours required varies depending on both intrinsic factors (e.g., motivation, attitude, and learning style) and extrinsic factors (e.g., type of instruction, quality of the instructor, and learning environment) in combination with a student's starting proficiency level. In a flight training context, if, after being assessed, it is determined that a trainee does not meet minimum entrance-level proficiency requirements, it is recommended that a student take part in an English language course specifically designed for the flight training context. In this such a course, obtaining operational proficiency may require, at times, up to 800 hours of quality language acquisition (Mathews, 2008). What is important is that the time spent in language learning is meaningful, and is done with a quality curriculum, a trained instructor, and within realistic and fair time parameters for measurable improvement.

Activity types. To illustrate the use of content and language integrated into a meaningful lesson, consider the topic of basic aircraft parts (fuselage, wings, empennage, landing gear, and engine). This content can serve as a vehicle for language learning both in its delivery and in how students are asked to demonstrate understanding. In an ideal lesson, objectives should cover both content and language, and use creative techniques to allow students to work on tasks that enable them to develop the communicative competence they need to recognize and repair breakdowns, ask for clarification, explain information, describe situations, and justify observations (Kay, 2019), all while developing operational content knowledge.

Example 1: Parts of an Aircraft. Consider the differences between abbreviated versions of two lessons on the basic parts of an aircraft below.

Lesson A: Parts of the Aircraft

Acquisition of Knowledge

Students activate prior knowledge through discussion while viewing visual representations of aircraft. A compelling video is shown which covers the five basic parts of an aircraft and the parts' functions. Students take notes using a pre-made graphic organizer. To review content, students tape strips of paper with components and functions on a large print out of a Cessna 172 projected on the board. Then, students receive either a component or a function and circulate around the room to find their "match" through asking and answering information-seeking questions (e.g. "Do you have the part that generates lift?").

Demonstration of Knowledge

Using the transcript from the video, students paraphrase a section of the text which describes a single part. Students meet with others who paraphrased the same part to compare, negotiate, and decide on a final version. Then, groups are formed so that each of the five aircraft parts includes one representative per group. Together, students then dub over the original video, altering their paraphrases as needed to match the pace of the video. As a group, the students will present their dub to the class by playing the video without sound and providing the narration themselves, making sure to include all key information (Roberts, 2017).

Lesson B: Parts of the Aircraft

Acquisition of Knowledge

Students are given a short reading that explains the five basic parts of the airplane which is read alone. The teacher then asks students brief comprehension questions, calling on students one-by-one to answer. To review, multiple choice questions are given such as the following:

1. The wings _____ lift as air flows around them.
    a. generate
    b. generates
    c. generating
    d. has generated

2. The empennage _____ the aircraft while flying.
    a. stabilizer
    b. stabilizes
    c. stabilizing
    d. has been stabilize

Students complete a matching exercise with a part on the left and a description of its function on the right. The teacher reviews the answers with students by calling on students one-by-one.

Demonstration of Knowledge

Students take a multiple choice quiz about the content of the reading. The quiz is ten questions long, with questions such as the following:

1. What kind of landing gear allows for easier landings?
   a. tricycle
   b. stationary
   c. conventional
   d. adjustable

2. What type of engine is found in most general aviation aircraft?
   a. turbine
   b. multi-bladed
   c. reciprocating
   d. battery-powered

A quality curriculum will include a substantial amount of exposure to aviation vocabulary, giving students a head start in ground school and possibly a confidence boost due to increased familiarity (Friginal, Mathews, & Roberts, in press). Both of these lessons provide exposure to important vocabulary and content, but the differences in the way that the content is delivered and in the inclusion of participatory activities highlight disparities in their likely effectiveness.

In Lesson A, students have ample opportunities to work together, negotiate meaning, ask clarification questions, and collaborate. Perhaps more importantly, they have opportunities to produce language through peer interaction and oral presentations that are directly related to the content. Challenging the students to describe parts of an aircraft at a pace which matches the visuals of the video requires precise timing and fluency, and cannot be done without using both content knowledge and linguistic skills.

On the other hand, Lesson B artificially separates the content and language focus. Students work in isolation without meaningful interaction and notably could answer the multiple choice questions in the review and the final activity either using *only* grammar skills (subject-

verb agreement and tenses) or *only* content knowledge. There is no necessary integration of English language skills and aviation content.

Example 2: Human Factors. Another example of utilizing aviation content as a vehicle for language learning focuses on human factors. Human factors serve as an interesting example in that the topic is relevant throughout the aviation industry and can bring awareness for students to the specific role that language itself can play in communications. While ICAO advocates for unambiguous and direct use of language, sociolinguistic factors can interfere with communication, nonetheless. This issue appears to be present in the communications preceding the Avianca Flight 052 crash during which the First Officer does not adequately convey a fuel emergency and is caught in the pragmatics of communicating with the Captain who lacks English proficiency, and with ATC (Avianca 052, 1990). The First Officer uses phrases such as "I think," reducing the urgency of the communication when requesting priority handling and illustrating limited control of pragmatic norms of English, likely influenced by culture (Friginal, Mathews, and Roberts, in press).

A lesson on human factors can provide a brief overview of the topic done in lecture-style by the instructor, followed by an explanation of ICAO's SHELL Model (see ICAO, 2018). Emphasis can be placed on liveware-to-liveware communications as seen in CRM when working with multinational crews. Hofstede (1991), as cited in Engle (2000), identifies three dimensions for understanding and leveraging culture in CRM: power-distance (PD), uncertainty avoidance (UA), and individualism vs collectivism (IND). Students can be asked to reflect upon and research their own national cultures on these dimensions by making use of Hofstede Insights' online tool called "Compare Countries." Using Engle's (2000) recommendations for ideal placement on each dimension for CRM—low PD, high UA, and low IND—students can

determine how CRM could best be taught to aviation professionals from their countries and present their ideas to the class. To extend the activity, transcripts of the Avianca 052 accident can be investigated to see how culture and language may have been contributory causes of the crash.

This activity introduces relevant content (e.g., Avianca 052, the SHELL model, and Hofstede and Engle's dimensions) to flight students endeavoring to become commercial pilots. The content here serves as a vehicle for introducing common vocabulary terms for human factors and CRM. The language skills that are exercised are listening, as the foundational information is explained by the instructor, and speaking, as students work together and share their ideas for CRM training with the class. When it comes to the productive portion of the lesson focused on speaking, it can be helpful to provide students with explicit instruction on the language forms that will be needed, which is referred to as 'language for the task' (Folse, 2006). In this lesson, the grammatical constructions that make up the language for the task might focus on language used for provisions of examples ("for example/instance," "in a case/situation where/in which," "at times," etc.). Students use these phrases to explain the common cultural practices in their nationalities. Moreover, expressions of necessity (modals by degree of emphasis such as "should vs. could" and it-cleft sentences such as "it would be helpful to," "it is necessary that," and "it is imperative to") could be pre-taught to enable students to describe an ideal CRM culture for their nationalities. These grammatical forms employed for the activity result in increasing students' proficiency as they engage with content related to critical concepts for clear communication.

Conclusion

By articulating the issues related to non-native English speakers ab initio NGAP and providing a description of an ideal screening tool and language teaching approach curriculum for pre-flight school language training, this chapter provides a path forward that moves towards

standardizing the flight training process while emphasizing quality and safety. The complexity of English as a lingua franca in the industry and in flight training contexts should not be underestimated. Successful ab initio English language training requires an appropriate proficiency assessment tool for readiness and an informed curriculum that ensures language learning is relevant and purposeful.

As it currently stands, the lack of regulation for English language training (see ICAO, 2009) creates problematic conditions when ab initio flight school students do not have the necessary English skills to succeed in flight school or communicate effectively during radio communications. Establishing effective language assessment and language training practices for the aviation industry is essential. With such growth expected in the aviation industry, especially in regions where English is neither a first nor a national language, it is simply not sufficient to piece together language assessments and curricula for other contexts and apply them to flight training in hopes that they will be effective. Assessments and curriculum need to be purposefully constructed to ensure their validity and efficacy.

Safety remains at the forefront of the aviation industry because of its high stakes nature (Atak & Kingma, 2011), although decisions are often balanced with monetary cost due to the financial realities of the industry (see ICAO, 2009). One purpose of providing targeted English language instruction is to ensure that students are appropriately trained from the beginning so that further costs are not incurred later when problems arise. In effect, employing effective aviation English assessment and training is an investment in the future of the NGAP so that they are prepared to communicate clearly in this rapidly growing industry.

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